

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OF THE FOLLOWING INFORMATION FROM THIS INSTRUMENT BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

SUBSURFACE OIL AND GAS LEASE

THIS AGREEMENT ("Lease") made this 26th day of July, 2008, between **Brian Bailey and Dawn Bailey, husband and wife** as Lessor (whether one or more), whose address is 8606 Kirk Lane, North Richland Hills, Texas 76180 and **DDJET Limited LLP**, as Lessee, whose address is 222 Benmar, Houston, Texas 77060, WITNESSETH: 8005 BB/PB

1. Lessor in consideration of Ten and no/100 Dollars and Other Valuable Consideration (\$10.00 & O.V.C.) in hand paid, of the royalties herein provided and of the agreements of Lessee herein contained hereby, grants, leases and lets exclusively unto Lessee for the purpose of investigating, exploring, prospecting, drilling and mining for and producing oil, gas, sulfur, fissionable materials and all other minerals (whether or not similar to those mentioned), conducting exploration, geologic and geophysical tests and surveys, injecting gas, water and other fluids and air into subsurface strata, laying pipelines, establishing and utilizing facilities for the disposition of salt water, dredging and maintaining canals, building roads, bridges, tanks, telephone lines, power stations and other structures thereon, and on, over and across lands owned or claimed by Lessor adjacent and contiguous thereto necessary to Lessee in operations to produce, save, take care of, treat, transport and own said minerals, the following described land in Tarrant County, Texas, (herein referred to as the "Lease Premises" or the "Land") to-wit

See attached Exhibit "A" for Land Description

This Lease also covers and includes all land and interest in land owned or claimed by Lessor adjacent or contiguous to the Land particularly described above, whether the same be in said survey or surveys or in adjacent surveys. Lessor agrees to execute any substitute Lease(s) or correction to Lease(s) tendered by Lessee for the purpose of providing a more specific description of the Lease Premises. Furthermore, Lessor authorizes Lessee to complete the description of the Lease Premises by inserting, as appropriate, the applicable Acreage, Survey, Abstract, City and Plat information in the description set forth in Exhibit "A," attached hereto.

2. Without reference to the commencement, prosecution or cessation at any time of drilling or other development operations, and/or to the discovery, development or cessation at any time of production of oil, gas or other minerals, and without further payments than the royalties herein provided, and notwithstanding anything else herein contained to the contrary, this Lease shall be for a term of Three (3) years from the date hereof (called "Primary Term") and as long thereafter as oil, gas or other mineral is produced from said Land or land pooled therewith hereunder, or as long as this Lease is continued in effect, as otherwise provided herein.

3. The royalties to be paid by Lessee are: (a) on oil, 25.00% of that produced and saved from said Land, the same to be delivered at the wells or to the credit of Lessor into the pipeline to which the wells may be connected; Lessee may from time to time purchase any royalty oil in its possession, paying the market price therefore prevailing for the field where produced on the date of purchase, and Lessee may sell any royalty oil in its possession and pay Lessor the price received by Lessee for such oil computed at the well; (b) on gas, including casinghead gas or other gaseous substance, produced from the Land and sold or used off the Lease Premises or for the extraction of gasoline or other product therefrom, the market value at the well of 25.00% of the gas so sold or used, provided that on gas sold by Lessee the market value shall not exceed the amount received by Lessee for such gas computed at the mouth of the well, and on gas sold at the well the royalty shall be 25.00% of the amount realized by Lessee from such sale; and (c) on fissionable materials and all other minerals mined and marketed, one-tenth either in kind or value at the well or mine, at Lessee's election, except that on sulfur mined or marketed, the royalty shall be Two Dollars (\$2.00) per long ton. If the price of any mineral or substance upon which royalty is payable hereunder is regulated by any governmental agency, the market value or market price of such mineral or substance for the purpose of computing royalty hereunder shall not be in excess of the price which Lessee may receive and retain. Lessee shall have free from royalty or other payment the use of water, other than water from Lessor's wells or tanks, and of oil, gas and coal produced from the Lease Premises in all operations which Lessee may conduct hereunder, including water injection and secondary recovery operations, and the royalty on oil, gas and coal shall be computed after deducting any so used. If Lessee drills a well on said Land or on land pooled therewith, which well is capable of producing oil or gas but such well is not being produced and this Lease is not being maintained otherwise as provided herein, this Lease shall not terminate, whether it be during or after the Primary Term, (unless released by Lessee) and it shall nevertheless be considered that oil and gas is being produced from the Lease Premises covered by this Lease when Lessee shall pay or tender (or make a bona fide attempt to pay or tender) as royalty to the parties who at the time of such payment would be entitled to receive royalty hereunder if the well was producing, or deposit to their credit in Chase Bank at P.O. Box 260180, Baton Rouge, LA 70826 (which bank as agent or depository and its successors are royalty owner or owners' agent, and shall continue as depository for all such sums which Lessee may pay hereunder regardless of changes in ownership or royalties) the sum of One and no/100 Dollar (\$1.00) for each calendar month, or portion thereafter during which said well is situated on the Lease Premises, or on land pooled therewith, and this Lease is not otherwise maintained, or this Lease is not released by Lessee as to the land on which or the horizon, zone or formation in which the well is completed. The first payment of such sum, shall be made on or before the first day of each calendar month after expiration of ninety (90) days from the date the lease is not otherwise maintained for all accruals to such date, and thereafter on or before the first day of each third calendar month for all accruals to each such date to Lessor's designated depository bank or, if a depository is not designated above, then mailed on or before the due date of payment to the parties entitled thereto at Lessor's address set forth above or to the last known address provided in writing to Lessee by Lessor. Lessee's failure to properly or timely pay or tender any such sum as royalty shall render Lessee liable for the amount due but it shall not operate to terminate this lease. Notwithstanding anything to the contrary, Lessee may from time to time withhold and accumulate such payments payable to Lessor until the first of the calendar month following the accumulation of Twenty-Five and no/100 Dollars (\$25.00) when payment shall be made as above provided.

4. The cash down payment is consideration for this Lease according to its terms and shall not be allocated as rental for a period. Lessee may at any time, and from time to time, execute and deliver to Lessor, or to the depository bank, or file for record a release or releases of this Lease as to any part or all of said Land or of any mineral or subsurface interval or any depths thereunder and thereby be relieved of all obligations as to the released land, mineral, horizon, zone or formation. If this Lease is released as to all minerals, horizons, zones and formations under a portion of the Lease Premises, the shut-in royalty and other payments computed in accordance therewith shall thereupon be reduced in the proportion that the acreage released bears to the acreage which was covered by this Lease immediately prior to such release.

5. Lessee, at its option, is hereby given the right and power during or after the Primary Term while this Lease is in effect to pool or combine the Lease Premises, or any portion thereof, as to oil, gas and other minerals, or any of them, with any other land covered by this Lease, and/or any other land, lease or leases in the immediate vicinity thereof, when in Lessee's judgment it is necessary or advisable to do so in order properly to explore, or to develop and operate the Lease Premises in compliance with the spacing rules of the Railroad Commission of Texas, or other lawful authority, or when to do so would, in the judgment of Lessee, promote the conservation of oil, gas or other mineral in and under and that may be produced from the Lease Premises. Units pooled for oil shall not substantially exceed in area 40 acres each plus a tolerance of 10% thereof; and units pooled for gas hereunder shall not substantially exceed in area 160 acres each plus a tolerance of 10% thereof, provided that should governmental authority having jurisdiction prescribe or permit the creation of units larger than those specified, units thereafter created may conform substantially in size with those prescribed or permitted by governmental regulations. Notwithstanding anything to the contrary stated herein, a unit for a horizontal well may include (i) the amount of acreage allowed for obtaining a permit to drill a well under the spacing and density provisions in the applicable field or statewide rules for a vertical wellbore, plus the additional acreage listed in the tables in the Railroad Commission of Texas Rule 86 (density greater than 40 acres), or (ii) the amount of acreage allowed for obtaining a full production allowable under the applicable field or statewide rules for a vertical wellbore, plus the additional acreage listed in the tables in the Railroad Commission of Texas Rule 86 (density greater than 40 acres). Lessee may pool or combine the Lease Premises or any portion thereof, as above provided as to oil in any one or more strata and as to gas in any one or more strata. Units formed by pooling as to any stratum or strata need not conform in size or area with units as to any other stratum or strata, and oil units need not conform as to area with gas units. Pooling in one or more instances shall not exhaust the rights of Lessee to pool this Lease or portions thereof into other units. Lessee shall file for record in the appropriate records of the county in which the Lease Premises is situated an instrument describing and designating the pooled acreage as a pooled unit; the unit shall become effective as provided in said instruments, or if said instrument makes no such provision, it shall become effective upon the date it is filed for record. Each unit shall be effective as to all parties hereto, their heirs, successors and assigns, irrespective of whether or not the unit is likewise effective as to all other owners of surface, mineral, royalty or other rights in land included in such unit. Lessee may at its election exercise its pooling option as to oil, gas and other minerals before or after commencing operations for or completing an oil or gas well or wells or mine for other mineral on the Lease Premises, and the pooled unit may include, but is not required to include, land or leases upon which a well or mine capable of producing oil, gas or other mineral in paying quantities has theretofore been completed or upon which operations for drilling of a well or mine for oil, gas or other mineral have theretofore been commenced. Operations for drilling on, or production of oil, gas or other mineral from any part of a pooled unit which include, all or a portion of the Lease Premises, regardless of whether such operations for drilling were commenced or such production was secured before or after the execution of this Lease or the instrument designating the pooled unit, shall be considered as operations for drilling on or production of oil, gas or other mineral from the Lease Premises whether or not the well or wells or mine be located on the Lease Premises, and the entire acreage constituting such unit or units, as to oil, gas or other minerals, or any of them, as herein provided, shall be treated for all purposes, except the payment of royalties on production from the pooled unit, as if the same were included in this Lease; provided that if after creation of a pooled unit, a well or mine drilled on the unit area, other than on the land covered hereby and included in the unit, which well is not classified as the type of well for which the unit was created (oil, gas or other mineral as the case may be), such well or mine shall be considered a dry hole for purposes of applying the additional drilling and reworking provisions of Paragraph 6 hereof. If an oil well on an oil unit, which includes all or a portion of the Lease Premises, is reclassified as a gas well, or if a gas well on a gas unit, which includes all or a portion of the Lease Premises, is reclassified as an oil well, the date of such reclassification shall be considered as the date of cessation of production for purposes of applying the additional drilling and reworking provisions of Paragraph 6 hereof as to all leases any part of which are included in the unit other than the leased premises on which the well is located. For the purpose of computing royalties to which owners of royalties and payments out of production and each of them shall be entitled on production of oil, gas or other minerals from each pooled unit, there shall be allocated to the Lease Premises and included in said unit (or to each separate tract within the

unit if this Lease covers separate tracts within the unit) a pro rata portion of the oil, gas or other minerals produced from the unit after deducting that used for operations on the unit. Such allocation shall be on an acreage basis - that is, there shall be allocated to the acreage covered by this Lease and included in the pooled unit (or to each separate tract within the unit if this Lease covers separate tracts within the unit) that pro rata portion of the oil, gas or other minerals produced from the unit which the number of surface acres covered by this Lease (or in each separate tract) and included in the unit bears to the total number of surface acres included in the unit. As used in this paragraph, the words, "separate tract" mean any tract with royalty ownership differing, now or hereafter, either as to parties or amounts, from that as to any other part of the Lease Premises. Royalties hereunder shall be computed on the portion of such production, whether it be oil, gas or other minerals, so allocated to the Lease Premises and included in the unit just as though such production were from such land. Production from an oil well will be considered as production from the lease or oil pooled unit from which it is producing and not as production from a gas pooled unit and production from a gas well will be considered as production from the lease or gas pooled unit from which it is producing and not from an oil pooled unit. Any pooled unit designated by Lessee in accordance with the terms hereof may be dissolved by Lessee by instrument filed for record in the appropriate records of the county in which the Lease Premises is situated at any time after completion of a dry hole or cessation of production on said unit.

6. If at the expiration of the Primary Term, oil, gas, or other mineral is not being produced on the Lease Premises, or from land pooled therewith, but Lessee is then engaged in drilling or reworking operations thereon, or shall have completed a dry hole thereon within 180 days prior to the end of the Primary Term, this Lease shall remain in force so long as operations on said well or for drilling or reworking of any additional well are prosecuted with no cessation of more than 60 consecutive days, and if they result in the production of oil, gas, or other mineral, so long thereafter as oil, gas, or other mineral is produced from the Lease Premises, or from land pooled therewith. If, after the expiration of the Primary Term of this Lease and after oil, gas or other mineral is produced from the Lease Premises, or from land pooled therewith, the production thereof should cease from any cause, this Lease shall not terminate if Lessee commences operations for drilling or reworking within 180 days after the cessation of such production, but shall remain in force and effect so long as Lessee continues drilling or reworking operations on said well or for drilling or reworking of any additional well with no cessation of more than 60 consecutive days, and if they result in the production of oil, gas, or other mineral, so long thereafter as oil, gas, or other mineral is produced from the Lease Premises, or from land pooled therewith. In the event a well or wells producing oil or gas in paying quantities should be brought in on adjacent land and within 660' feet of and draining the Lease Premises, or land pooled therewith, Lessee agrees to drill such offset well or wells as a reasonably prudent operator would drill under the same or similar circumstances.

7. Lessee shall have the right at any time during or after the expiration of this Lease to remove all property and fixtures placed by Lessee on the Lease Premises, including the right to draw and remove all casing. When necessary for utilization of the surface for some intended use by Lessor and upon request of Lessor or when deemed necessary by Lessee for protection of the pipeline, Lessee will bury pipelines below ordinary plow depth, and no well shall be drilled within two hundred (200') feet of any residence or barn now on the Lease Premises without Lessor's consent.

8. The rights of either party hereunder may be assigned in whole or in part, and the provisions hereof shall extend to their heirs, successors and assigns; but no change or division in ownership of the land or royalties, however accomplished, shall operate to enlarge the obligations or diminish the rights of Lessee, including, but not limited to, the location and drilling of wells and the measurement of production; and no change or division in such ownership shall be binding on Lessee until forty-five (45) days after Lessee shall have been furnished by registered U.S. mail at Lessee's principal place of business with a certified copy of recorded instrument or instruments evidencing same. In the event of assignment hereof in whole or in part, liability for breach of any obligation hereunder shall rest exclusively upon the owner of this Lease or of a portion thereof who commits such breach. If six or more parties become entitled to royalty hereunder, Lessee may withhold payment thereof unless and until furnished with a recordable instrument executed by all such parties designating an agent to receive payment for all.

9. Breach by Lessee of any obligation hereunder shall not work a forfeiture or termination of this Lease nor cause a termination or reversion of the estate created hereby nor be grounds for cancellation hereof in whole or in part. In the event Lessor considers that operations are not at any time being conducted in compliance with this Lease, Lessor shall notify Lessee in writing of the facts relied upon as constituting a breach hereof, and Lessee, if in default, shall have sixty (60) days after receipt of such notice in which to commence compliance with the obligations imposed by virtue of this Lease.

10. Lessor hereby warrants and agrees to defend the title to the Lease Premises and agrees that Lessee at its option may discharge any tax, mortgage or other lien upon the Lease Premises, either in whole or in part, and if Lessee does so, it shall be subrogated to such lien with right to enforce same and apply royalties accruing hereunder toward satisfying same. When required by state, federal or other law, Lessee may withhold taxes with respect to royalty and other payments hereunder and remit the amounts withheld to the applicable taxing authority for the credit of Lessor. Without impairment of Lessee's rights under the warranty in event of failure of title, if Lessor owns an interest in the oil, gas or other minerals on, in or under the Lease Premises less than the entire fee simple estate, whether or not this Lease purports to cover the whole or a fractional interest, the royalties, bonus and shut-in royalties to be paid Lessor shall be reduced in the proportion that Lessor's interest bears to the whole and undivided fee and in accordance with the nature of the estate of which Lessor is seized. Should any one or more of the parties named above as Lessor fail to execute this Lease, it shall nevertheless be binding upon the party or parties executing same. If title investigation for Lessee results in a reduction or increase of bonus consideration payable to Lessor, the resulting bonus payment shall be deemed for all purposes to be paid to Lessor on the date when Lessee's check (in substitution for any pre-delivered draft) is delivered to Lessor prior to its due date or, prior to its due date is mailed to Lessor at the last known address provided by Lessor.

11. Should Lessee be prevented from complying with any express or implied covenant of this Lease, from conducting drilling or reworking operations thereon or on land pooled therewith or from producing oil, gas or other mineral therefrom or from land pooled therewith by reason of scarcity or of inability to obtain or to use equipment or material, or by operation of force majeure, any federal or state law or any order, rule or regulation of governmental authority, then while so prevented, Lessee's obligation to comply with such covenant shall be suspended, and Lessee shall not be liable in damages for failure to comply therewith; and this Lease shall be extended while and so long as Lessee is prevented by any such cause from conducting drilling or reworking operations on or from producing oil, gas or other minerals from the Lease Premises or land pooled therewith, and the time while Lessee is so prevented shall not be counted against Lessee, anything in this Lease to the contrary notwithstanding.

12. **Surface Use Restriction:** Notwithstanding anything to the contrary contained herein, Lessee agrees that it shall have no right to use the surface of the Lease Premises to exercise any of the rights granted hereunder without first obtaining Lessor's written consent. This provision shall in no way restrict Lessee's exploration of or production from the Lease Premises by means of wells drilled on other lands but entering or bottomed on the Lease Premises. Any wells directionally or horizontally drilled or operated under the Lease Premises with bottomhole locations (for vertical wells) or with horizontal drainhole locations (for horizontal wells) on the Lease Premises shall be regarded as if the wells were drilled on the Lease Premises. Lessee agrees that any drilling under the Lease Premises shall commence at and continue at depths below five hundred feet (500') from the surface of the earth. In addition to Lessee's other rights under this Lease, Lessor hereby grants to Lessee a subsurface easement to drill and operate directional and/or horizontal wells under and through the Lease Premises to reach lands not covered by this Lease and which wells have bottom hole locations (if a vertical well) or horizontal drainhole locations (if a horizontal well) on lands not covered by this Lease or land pooled therewith. Lessee agrees that this subsurface easement shall commence at and continue at all depths below five hundred feet (500') from the surface of the earth.

13. Except as expressly provided above in Paragraph 3, Lessor's royalty may not be charged directly, or indirectly, with any of the expenses of production, gathering, dehydration, compression, processing, or treating the gas produced from the land that are incurred prior to the inlet of a gas pipeline evacuating gas from the Lease Premises. After delivery at said inlet, Lessor's royalty shall bear its proportionate share of all costs and expenses, including transportation, to the point of sale.

14. Each singular pronoun herein shall include the plural whenever applicable.

15. For convenience, this instrument may be executed in multiple counterparts and Lessor and Lessee agree that for recording purposes their respective signature page and acknowledgments may be removed from their respective counterpart and attached to a single Oil, Gas and Mineral Lease and for all purposes and obligations hereunder this shall be considered as one single Oil, Gas and Mineral Lease.

16. Lessor shall, upon the request of Lessee, use its best efforts in assisting Lessee in obtaining a subordination of Deed of Trust or similar security instrument that may affect the Lease Premises. Additionally, in the event Lessor receives a notice of default, acceleration of loan, or notice of sale under a Deed of Trust or other security instrument affecting the Lease Premises, Lessor shall immediately provide copies of any such notice, and all additional relevant facts, to Lessee. In this regard, Lessor shall comply with all reasonable requests of Lessee.

IN WITNESS WHEREOF, this instrument is executed on the date first above written.

By: Brian K Bailey
(Individually and in all Capacities for the above described Land)

Printed Name: Brian Bailey

Title: Lessor

By: Dawn M Bailey
(Individually and in all Capacities for the above described Land)

Printed Name: Dawn Bailey

Title: Lessor

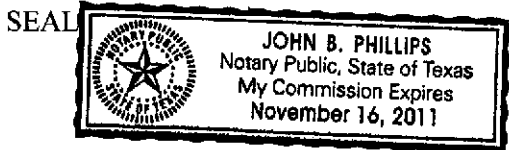
Individual Acknowledgment

STATE OF TEXAS §
COUNTY OF Tarrant §

BEFORE ME, on this day personally appeared Brian Bailey, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed the same for purposes and considerations therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 26th day of June, 2008.

Notary Public in and for the State of Texas.
Signature of Notary: [Signature]
John B. Phillips
(Print Name of Notary Here)
My Commission Expires: 11/16/2011



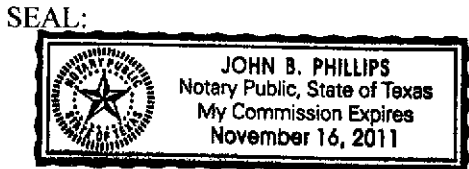
Individual Acknowledgment

STATE OF TEXAS §
COUNTY OF Tarrant §

BEFORE ME, on this day personally appeared Dawn Bailey, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he/she executed the same for purposes and considerations therein expressed, and in the capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the 26th day of June, 2008.

Notary Public in and for the State of Texas.
Signature of Notary: [Signature]
John B. Phillips
(Print Name of Notary Here)
My Commission Expires: 11/16/2011



Corporate Acknowledgment

STATE OF TEXAS §
COUNTY OF _____ §

The foregoing instrument was acknowledged before me, on this _____ day of _____, 2008, by _____ of _____, a _____ corporation, on behalf of said corporation.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this the day and year last above written.

Notary Public in and for the State of Texas.
Signature of Notary: _____
(Print Name of Notary Here)
My Commission Expires: _____

SEAL:

Exhibit "A"
Land Description

Attached to and made a part of that certain Oil, Gas and Mineral Lease dated 26th day of July, 2008, by and between, DDJET Limited LLP as Lessee and **Brian Bailey and Dawn Bailey, husband and wife** as Lessor.

Lessor authorizes Lessee to insert the Acreage, Survey, Abstract, City and Plat information below, if it is not already included. From time to time Lessee may determine that some part or all of the Lease Premises should be more specifically described, in which case Lessor agrees to execute any substitute Lease(s) or correction to Lease(s) tendered by Lessee for such re-description.

0.296 acre(s) of land, more or less, situated in the S. Richardson Survey, Abstract No. 1266, and being Block 5, Lot 2, Meadowview Estates Addition, an Addition to the City of North Richland Hills, Tarrant County, Texas, according to the Plat thereof recorded in Volume/Cabinet 388-99 Page/Slide 59 of the Plat Records, Tarrant County, Texas and being further described in that certain Deed recorded 10/5/2007 as Entry #D207357464 of the Official Records of Tarrant County, Texas.

After Recording Return to:
HARDING COMPANY
13465 MIDWAY ROAD, STE. 400
DALLAS, TEXAS 75244
PHONE (214) 361-4292
FAX (214) 750-7351

Addendum to Subsurface Oil and Gas Lease

Attached to and made a part of that certain Subsurface Oil, Gas and Mineral Lease dated 26th day of July, 2008, by and between, DDJET Limited LLP as Lessee and Brian Bailey and Dawn Bailey, husband and wife as Lessor.

The provisions of the hereinafter paragraphs shall supersede and govern the provisions of the printed form text of this Lease and shall inure to the benefit of, and be binding upon the Parties hereto and their respective heirs, representatives, successors and assigns.

1. This Lease contains an additional ten percent (10%) acreage to include all easements adjacent to the Lease Premises.
2. Lessee is responsible for all fees in obtaining a subordination of Lessor's Deed of Trust or similar security instrument.
3. Drilling shall be limited to oil, gas, and sulfur, and excludes any other minerals.

After Recording Return to:
HARDING COMPANY
13465 MIDWAY ROAD, STE. 400
DALLAS, TEXAS 75244
PHONE (214) 361-4292
FAX (214) 750-7351



HARDING COMPANY
13465 MIDWAY RD, STE 400

DALLAS TX 75244

Submitter: PETROCASA ENERGY-INC

SUZANNE HENDERSON
TARRANT COUNTY CLERK
TARRANT COUNTY COURTHOUSE
100 WEST WEATHERFORD
FORT WORTH, TX 76196-0401

DO NOT DESTROY
WARNING - THIS IS PART OF THE OFFICIAL RECORD.

Filed For Registration: 11/06/2008 02:05 PM
Instrument #: D208419231
LSE 6 PGS \$32.00

By: _____



D208419231

ANY PROVISION WHICH RESTRICTS THE SALE, RENTAL OR USE
OF THE DESCRIBED REAL PROPERTY BECAUSE OF COLOR OR
RACE IS INVALID AND UNENFORCEABLE UNDER FEDERAL LAW.

Printed by: DS